

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

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COUNTRY	Czechoslovakia	REPORT	
SUBJECT	Manufacture of Radio Sets for Military Purposes	DATE DISTR.	16 February 1955
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1. The Julius Fucik Plant of Tesla, National Enterprise, Pobebradska Avenue 186, Prague-Hloubetin, is currently manufacturing the following types (models) of military radio sets:
- Type PKV 1: A short-wave receiver, which is a copy of the German set, Mark E-10 KA. The Czechoslovak PKV 1 has been improved and has a better performance than the German original. It has 11 vacuum tubes, type E 22 F/RV 12 P 2000, which are being manufactured in the Tesla-Hloubetin plant.
 - Type 256: A short-wave transmitter operating in the eight-meter wave band. It has two vacuum tubes, type RL 12 P 10. Its output is 10 watts. This transmitter is designed for use in vehicles.
 - Type 267: A short-wave transmitter, rather similar to the 256 model, but it has an output of up to 50 watts. It is equipped with tubes of the type IS 50.
 - Type Lambda: This is a 13-tube receiver which operates on nine short-wave bands.
 - Type Jalta: This is a 200-watt short-wave transmitter (see paragraph 2 below).
 - Type E 10 AK: A 10-tube receiver operating in the 80-meter band. It has been designed for use by the air force.
 - Type ES 10 K: A 35-watt short-wave transmitter designed for use by the air force. It operates in the 80-meter band.
 - Type FUG-16: Short-wave receiver and transmitter (see paragraph 4 below).
 - Type FUG-10: A short- and long-wave receiver and transmitter (see paragraph 3 below).

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- 2 -

2. The Jalta radio set:

- a. The Jalta radio set was seen in 1946-1947 in the building of the General Staff, in the Ministry of the Interior in Prague, and in the radio center of the SNB regional headquarters for Bohemia in Prague-Dejvice. There were protracted discussions in official places during 1946 as to who was to receive allocations of the Jalta radio sets: the Army or the SNB. [redacted] all major SNB posts in Czechoslovakia were equipped with this radio set. Ground stations of SNB air patrols also received these radios. This informant does not know whether the set is being used also by the Czechoslovak Army.

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- b. Production: Several hundred brand-new Jalta sets remained on Czechoslovak territory in 1945. During the war, the Telegrafia Works in Pardubice had been manufacturing parts for this set, and in 1947 the Tesla Works in Pardubice² began producing entire new sets of these Jalta radios.
- c. Technical data:
- (1) The set consists of receiver and transmitter, both for radio-telegraphy and telephony.
 - (2) Wave lengths are in the short-wave band and between about 30 and 120 meters.
 - (3) Output: telegraphy 70 watts.
 - (4) Size: about 35 x 35 x 75 centimeters.
 - (5) Weight: about 60 kilograms.
 - (6) Power unit: this part of the unit is "universal", i.e., it can be connected to AC and DC current as well as to automobile batteries and power generators.
- d. The unusually heavy overall weight of the set is caused by the rather complicated power unit of the set, as well as by the field construction of its steel frame, which is built to be very strong.

3. Receiver and transmitter FUG-10:

- a. The FUG-10 is a receiver and transmitter which operates both on short and on long waves.
- b. Technical description: The receiver is equipped with vacuum tubes type RV 12-P 2000. Each receiving unit contains eight tubes of this type. The transmitters are equipped with transmitter tubes type RV 12 - P 35; there are three of these in each transmitter. Both the transmitters have a maximum power output of 35 watts. The short-wave receiver and transmitter operates on bands from 3,000 kilocycles to 6,000 kilocycles.
- c. Operation: The vacuum tubes in the transmitters must be preheated.
- d. Manufacture and use: The FUG-10 set is of German design but has been improved and was until recently being manufactured in Czechoslovakia. As of July 1954 its manufacture had been discontinued. Vacuum tubes for the equipment are manufactured by Tesla Hloubetin. It is very widely used in the armed forces, especially in the air force.
- e. Legend to attached Figure 1:
- (1) The Short-Wave Receiver:
 - a. Reception amplifier
 - b. Dial, calibrated in kilocycles
 - c. Coils for rough and fine tuning
 - d. Wave-band switch
 - e. Plugs for earphones

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- 3 -

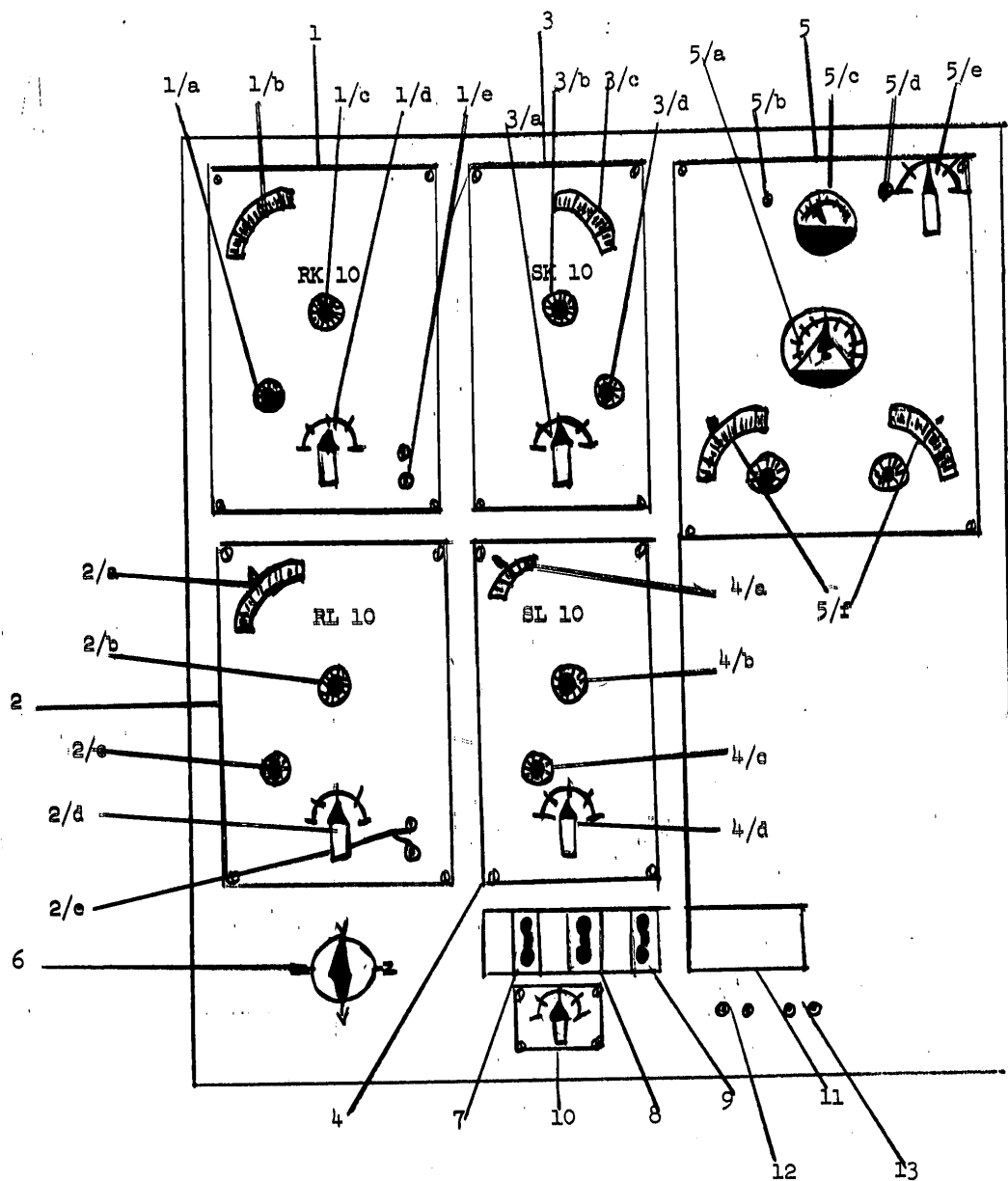
- (2) The Long-Wave Receiver:
 - a. Dial, calibrated in kilocycles
 - b. Coils for rough and fine tuning
 - c. Reception amplifier
 - d. Wave-band switch
 - e. Plugs for earphones
- (3) The Short-Wave Transmitter:
 - a. Band switch
 - b. Dial of rough frequency setting
 - c. Dial, calibrated in kilocycles
 - d. Dial for fine frequency tuning
- (4) The Long-Wave Transmitter:
 - a. Dial, calibrated in kilocycles
 - b. Dial of rough frequency setting
 - c. Dial of fine frequency tuning
 - d. Band switch
- (5) Main Outlet with the Antenna Segment:
 - a. Switch for setting rough output when tuning the transmitter
 - b. Binding post for ground
 - c. Milliampere meter for measuring transmitter output
(antenna tuning)
 - d. Binding post for antenna
 - e. Switch to milliampere meter for measuring grid voltage
 - f. Coils and scales for setting of maximum output
- (6) Voltage switch for use with battery
- (7) Switch for preheating of vacuum tubes
- (8) Filament switch
- (9) Operating switch
- (10) Power switch for using outside current (from network)
- (11) Storage of spare tubes
- (12) Binding posts for telegraph key (button)
- (13) Binding posts for earphones (flying helmet)

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Figure 1.



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- 5 -

4. Radio set FUG-16: For details of short-wave transmitter and receiver set, see Figure 2.
- a. This radio set is very widely used in the Czechoslovak Army and on air bases. A similar radio set, with only slight modifications, is also being used on board aircraft. The prototype of this set is German. It has recently been improved by the Tesla Hloubetin plant, which is manufacturing these radios.
- b. Legend to Figure 2:
- (1) Switch -- reception/transmission
 - (2) Jack for earphones
 - (3) Control light
 - (4) Main switch
 - (5) Built-in telegraph key
 - (6) Coils for crude frequency tuning
 - (7) Coils for fine frequency tuning
 - (8) Dial
 - (9) Output dial -- antenna tuning

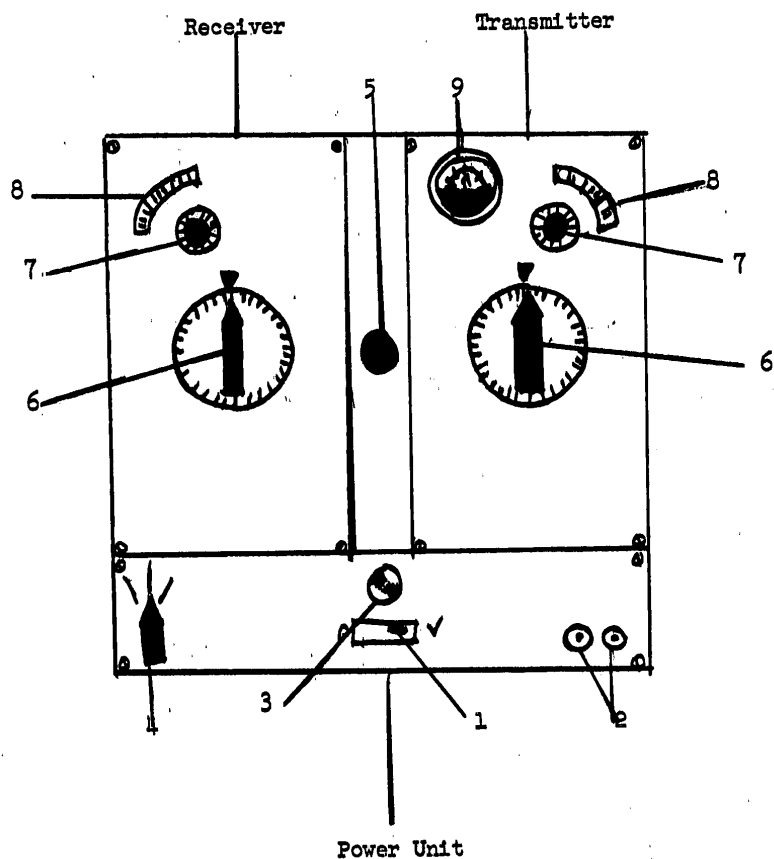
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- 6 -

Figure 2.



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- 7 -

5. Short-wave transmitter - 800 watt:

a. Legend to attached Figure 3:

- (1) Output indicator (millimeter)
- (2) Switch handles for tuning
- (3) Transmitter tube
- (4) Band switch
- (5) Coils for output tuning
- (6) Dial, calibrated in frequency.

b. It is equipped with a transmitter tube, type 253, with a maximum output of 800 watts.

c. Operation:

When tuning the transmitter, the switch handles (Figure 3, #2) must be thrown to the right. Only when the transmitter is tuned to a maximum output will these switches be thrown back to the left, and the set can then be operated. If the operator makes a mistake in this respect, he can burn out the transmitter tube. The transmitter is originally of German construction but has been improved and is currently being manufactured by the Tesla Plant for military purposes. This equipment is used mostly on air bases and in army communications centers.

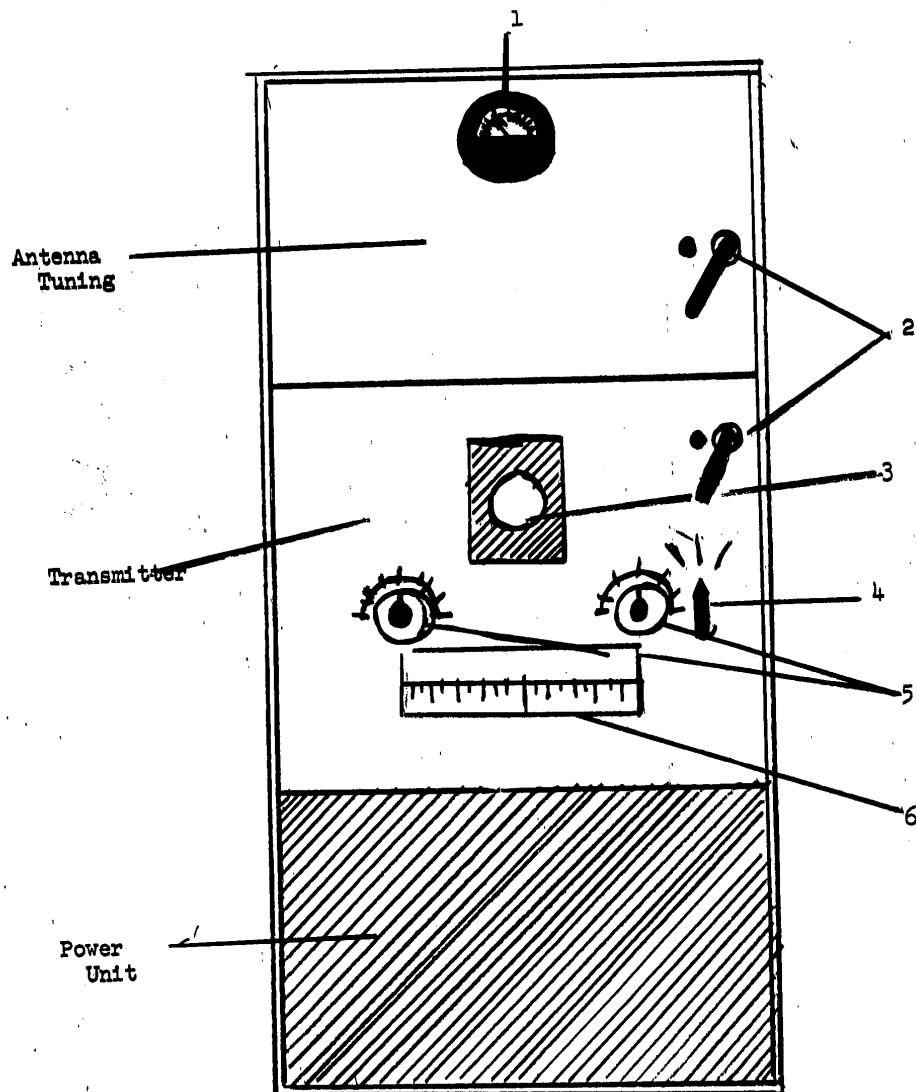
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- 8 -

Figure 3



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- 9 -



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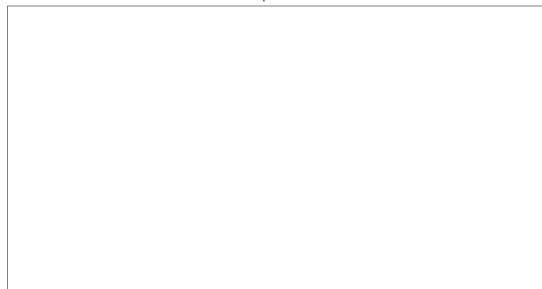
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the Telegrafia Works was renamed

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Tesla Works in 1946.

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